

CLAIMS

1. An electronic module, comprising:

a casing defining a cavity therein, said casing having at least one opening therethrough for communication with said cavity;

a substrate received in said cavity, said substrate having a plurality of throughholes positioned adjacent to and overlapping with said opening;

a connector header positioned over said casing opening, said connector having a plurality of electrical terminals, with first portions positioned exterior of said cavity, and second portions extending into said cavity and into said throughholes of said substrate forming an electrical and mechanical connection therewith; and

wherein said mechanical connection at least partially retains said connector header and substrate to said casing.

2. The electronic module of claim 1, wherein said casing is defined by a planar wall and upstanding peripheral walls, said opening extending through said planar wall, and said peripheral walls forming said cavity.

3. The electronic module of claim 2, wherein said terminal second portions are compliant pin sections.

4. The electronic module of claim 3, wherein said substrate is a printed circuit board, and said throughholes are plated and interconnected to traces on said circuit board.

5. The electronic module of claim 4, further comprising electronic components positioned within said cavity and mounted to said printed circuit board, interconnected to said traces.

6. The electronic module of claim 1, wherein said casing further comprises an upstanding sealing wall in a surrounding relation to said opening.

7. The electronic module of claim 6, wherein said connector header has a sealing groove with a complementary geometry as said upstanding sealing wall and is received therein.

8. The electronic module of claim 7, further comprising a seal member positioned within said sealing groove and in sealing contact with said sealing wall.

9. The electronic module of claim 1, wherein said connector header has a mounting surface which extends at least partially into said opening.

10. The electronic module of claim 9, wherein said header mounting surface is adhesively fixed to said substrate.

11. The electronic module of claim 9, wherein said header mounting surface is adhesively fixed to said casing.

12. The electronic module of claim 11, wherein said casing has two elongate openings, with an intermediate strap portion, said connector header having raised portions adjacent said compliant pin portions, received in said openings, and a mounting portion intermediate said raised portions.

13. The electronic module of claim 11, wherein said mounting surface is adhesively fixed to said strap portion.

14. A method of making an electronic module, comprising the steps of:

providing a casing defining a cavity therein, said casing having an opening therethrough for communication with said cavity;

positioning a substrate in said cavity, said substrate having a plurality of throughholes positioned adjacent to and overlapping with said opening;

positioning a connector header over said casing opening in a mating direction, said connector having a plurality of electrical terminals, with first portions

positioned exterior of said cavity, and second portions extending into said cavity and into said throughholes of said substrate forming an electrical and mechanical connection therewith;

providing a sealing member between said casing and said header which is compressed in the mating direction, and

retaining said connector header against said casing.

15. The method of claim 14, wherein a mechanical connection between said header and said substrate retains said connector header and substrate to said casing.

16. The method of 15, wherein said terminal second portions are provided as compliant pin sections.

17. The method of claim 14, wherein said casing is provided with an upstanding sealing wall in a surrounding relation to said opening.

18. The method of claim 17, wherein said connector header is provided with a sealing groove with a complementary geometry as said upstanding sealing wall and is received therein.

19. The method of claim 18, wherein said seal member is positioned within said sealing groove and in sealing contact with said sealing wall.

20. The method of claim 14, wherein said connector header is provided with a mounting surface which extends at least partially into said opening and is placed in contact with said substrate.

21. The method of claim 20, wherein said header mounting surface is adhesively fixed to said substrate.

22. The method of claim 20, wherein said header mounting surface is adhesively fixed to said casing.

23. The method of claim 22, wherein said connector header is provided with two elongate openings, with an intermediate strap portion, said connector header having raised portions adjacent said compliant pin portions received in said openings and a mounting portion intermediate said raised portions.

24. The method of claim 23, wherein said mounting surface is adhesively fixed to said strap portion.

25. The method of claim 14, wherein said connector header, casing and substrate are attached to each other simultaneously.

26. The method of claim 25, wherein said connector header, casing and substrate are attached to each other by a single movement towards each other along said mating axis.